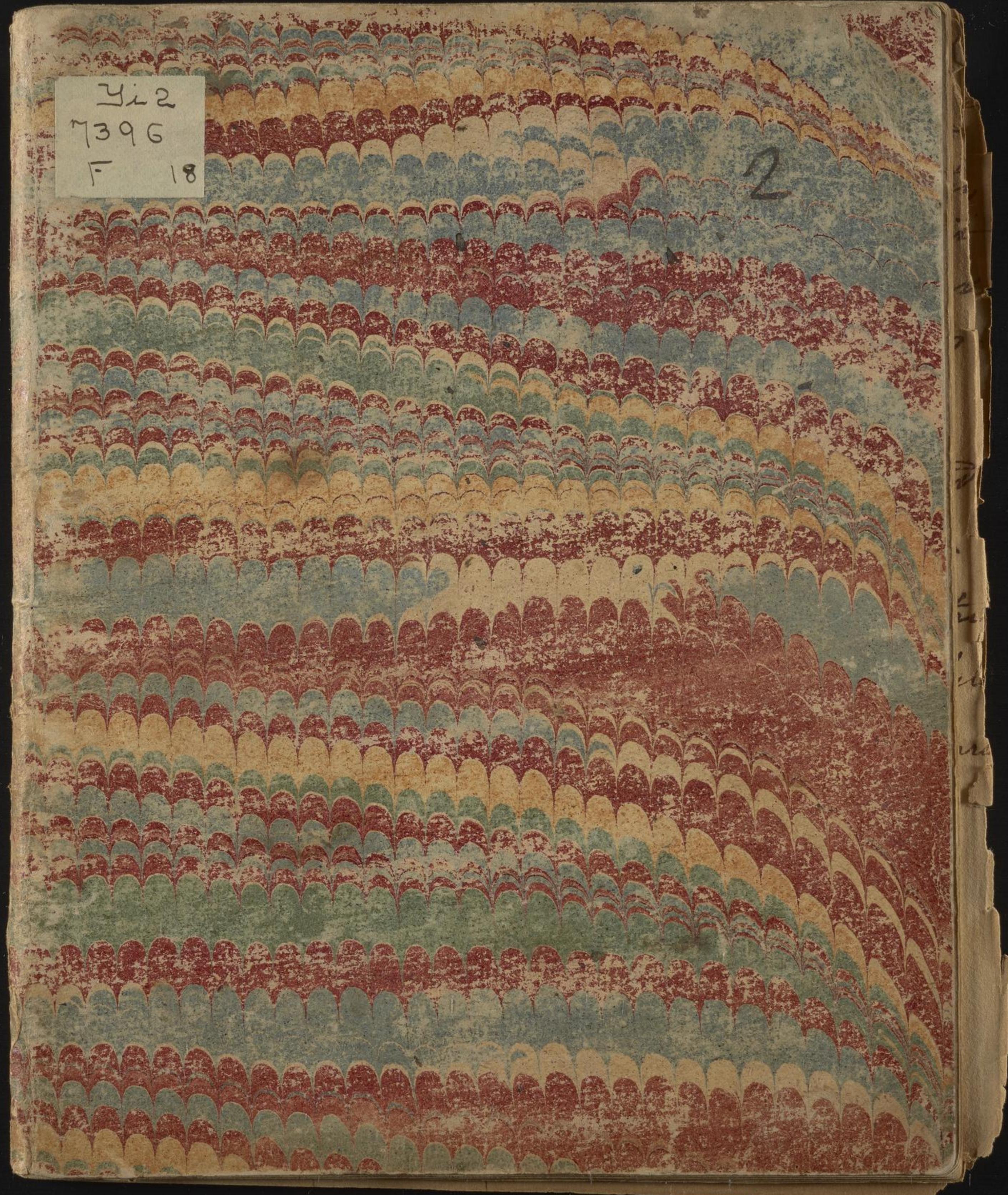
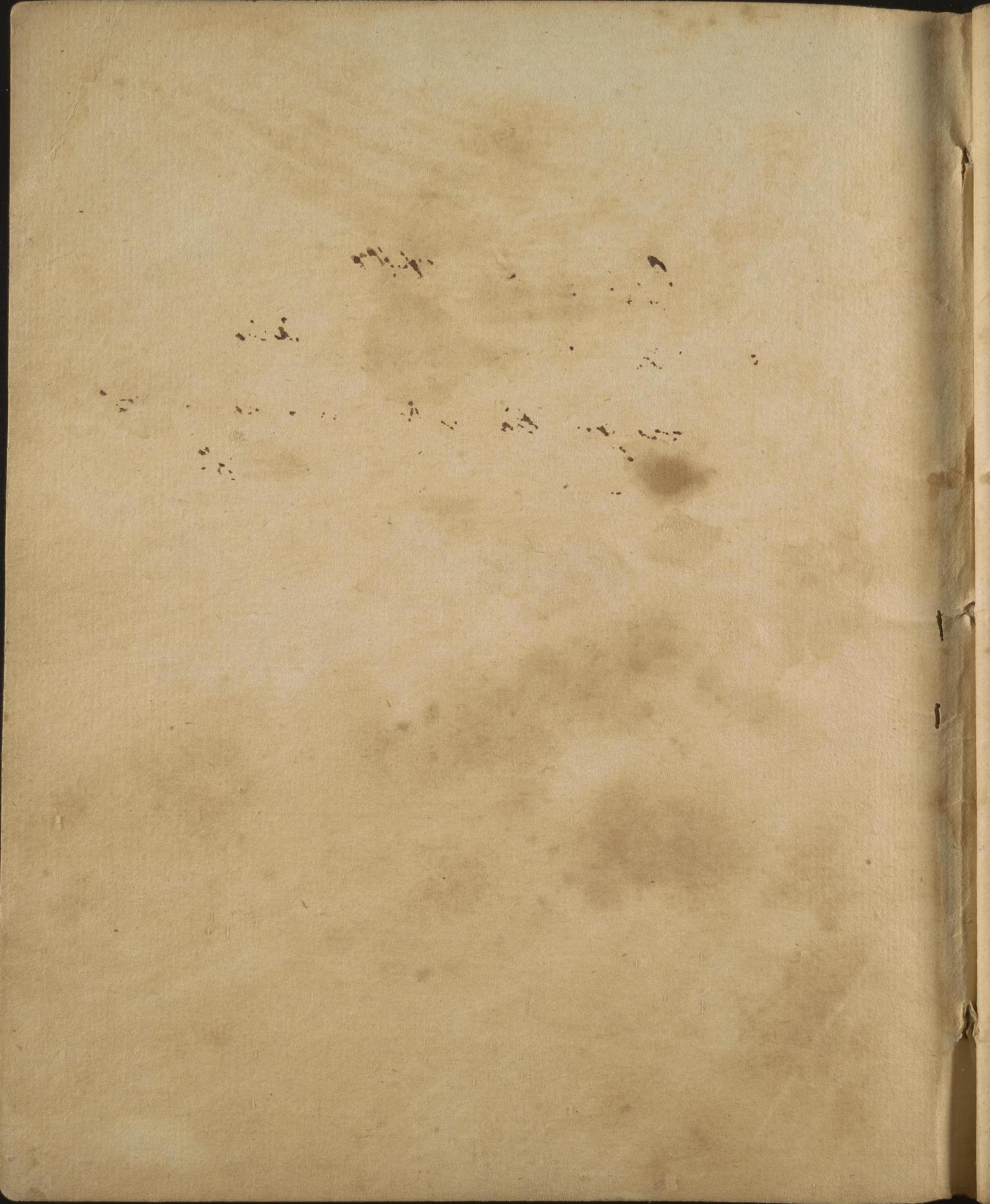


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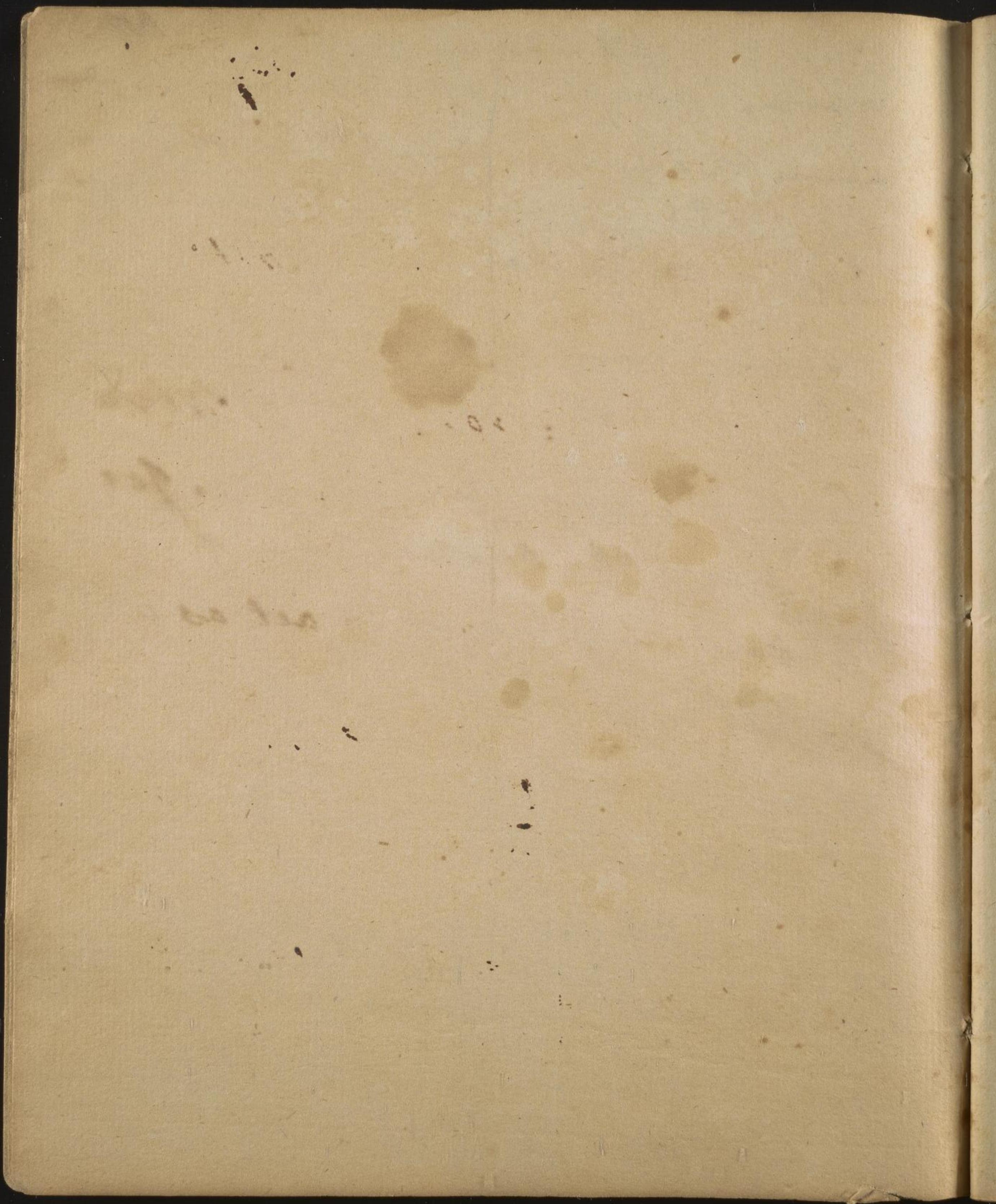
Lectures on Pathology -  
Mortal Effects of Colic. p: 47.  
of Rarity & Density of the Air 80  
of Impregnations & mixtures of  
the air — — — 80

v I shall ; mention its positive, & 2<sup>d</sup> its  
relative effects. -

falls more ~~wholly~~  
~~regular~~ rain in those Islands in one  
year than in any other of coun-  
try in Europe - or perhaps in the  
world. - tho' less than in the US -

Let us next attend to the effects  
of cold upon the human body. V

Cold is a negative quality: It exists  
only from the abstraction of heat.  
It has been supposed to act as a stimu-  
lant upon the body, but this opinion  
has arisen only from an ignorance of  
that law in the Animal Economy,  
that the abstraction of <sup>the</sup> Stimulus  
of heat by  
increasing the excitability of the  
System renders it liable to be acted  
upon with more force by other

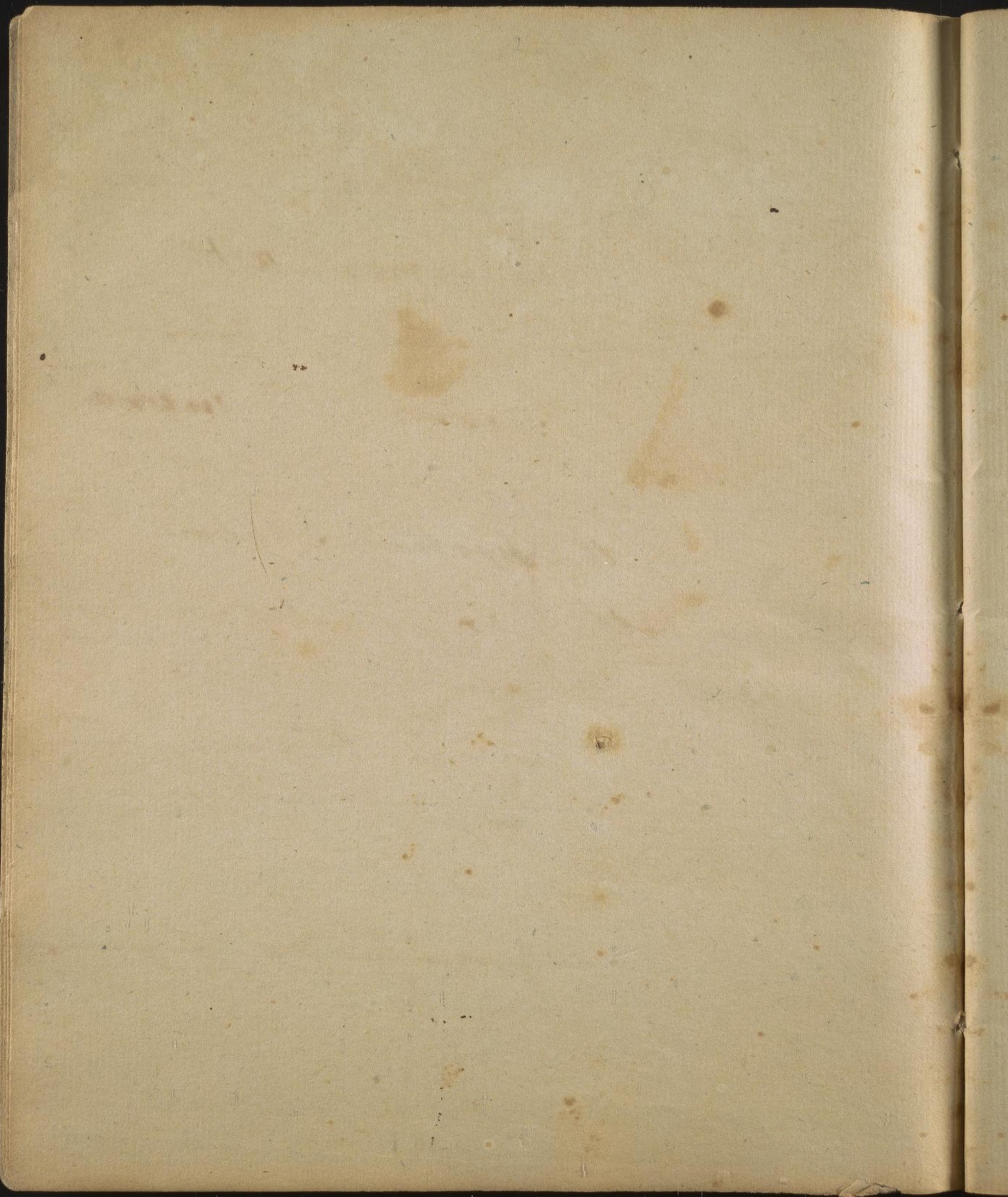


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stimuli, and hence the vigor imparted to the system by these stimuli has been & erroneously ascribed to the cold. The universal action of cold on the system is as a Sedative.

This I infer 1: from the general debility which follows the action of cold on the system. Labourers & travellers both bear witness to the truth of this observation in the winter season.  
2 from the drowsiness - Slowness - ~~weakness~~ <sup>feeble and</sup> & <sup>weakness -</sup> absence of pulse ~~&~~ from the sleepiness - see and deafness which follow cold.

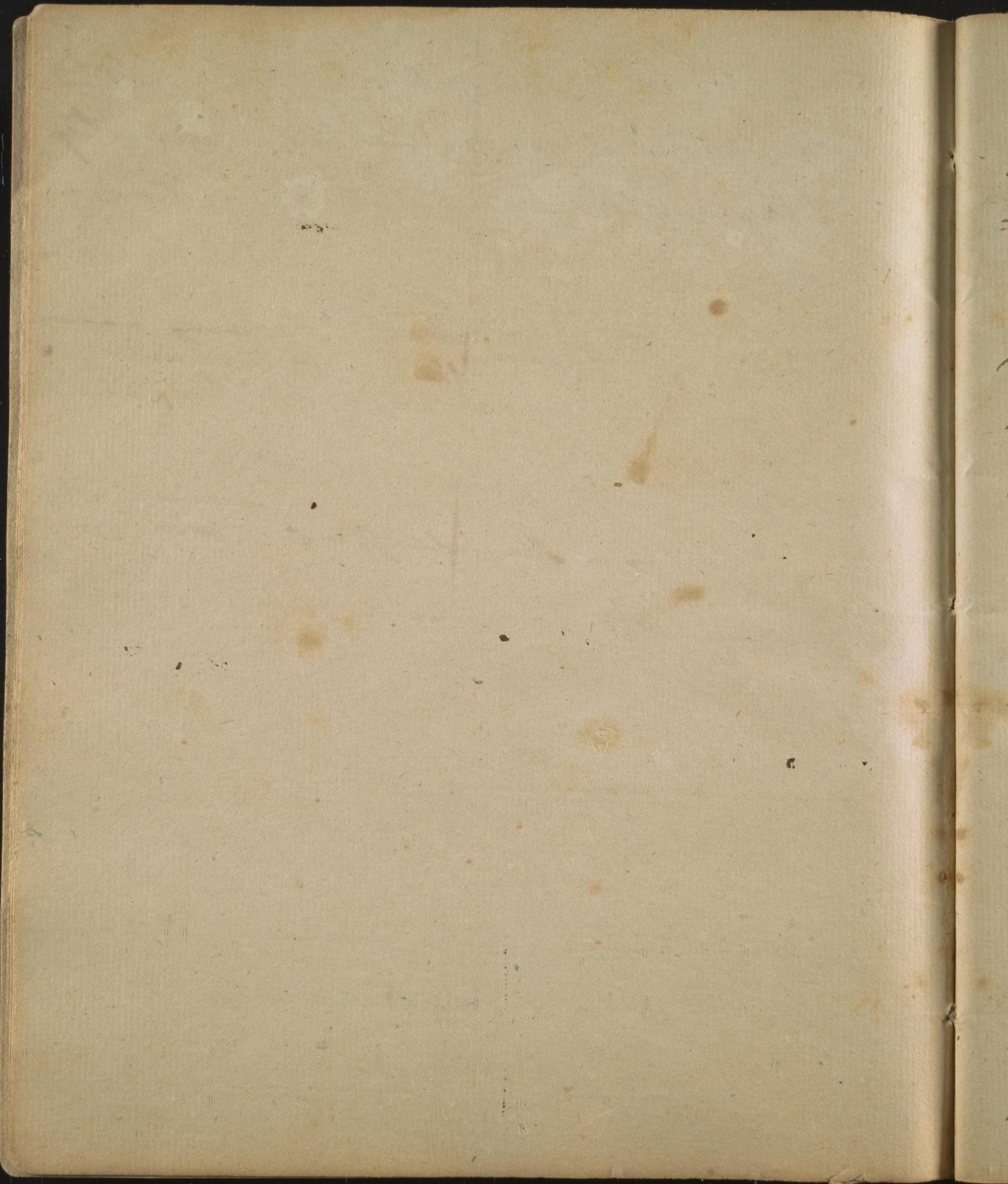
The pulse of a Greenlander is generally beats but soft ones in a minute. all these phenomena certainly indicate the sedative operation of cold upon



49

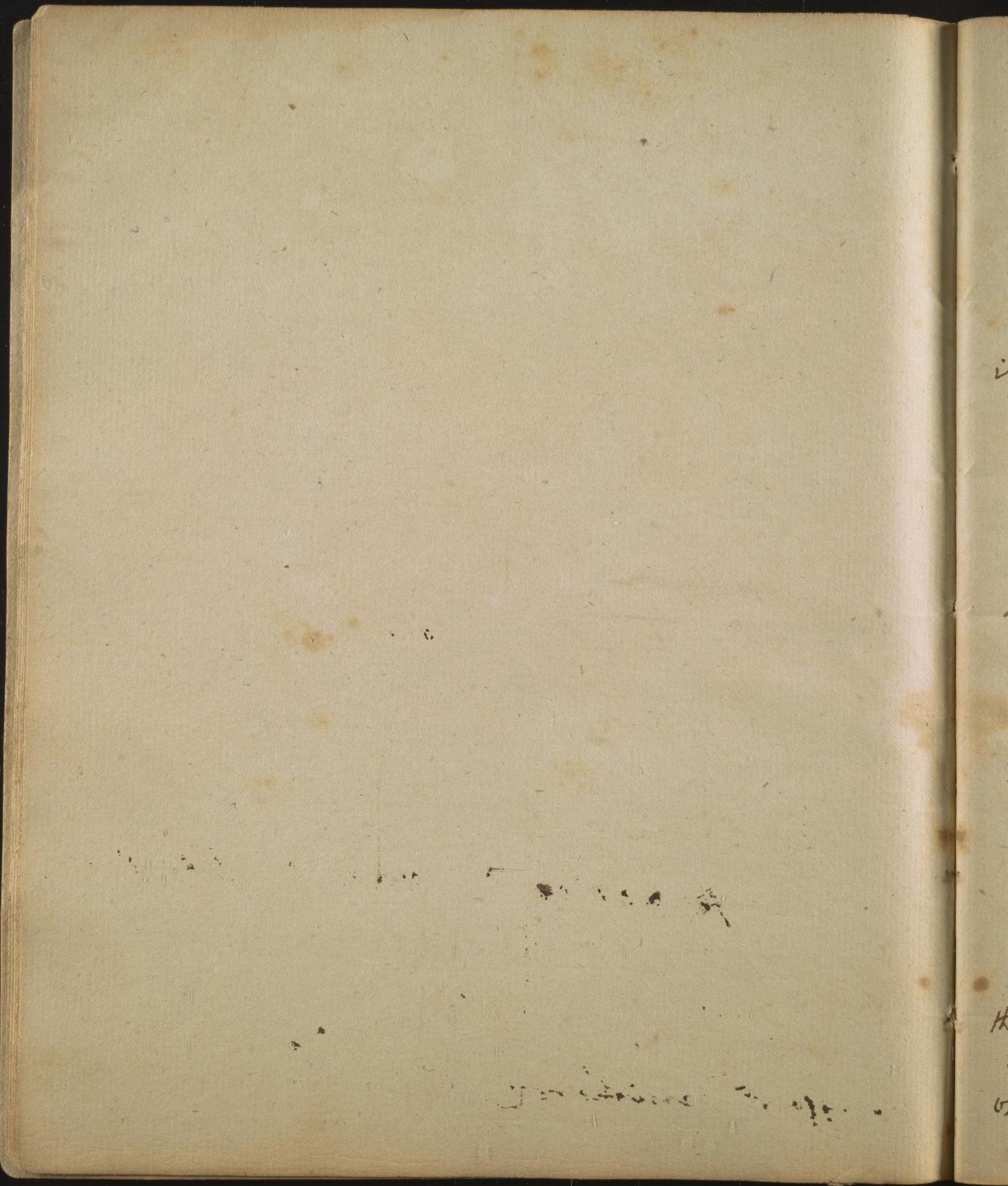
the system. 3 From the effects of cold in certain diseases being so exactly analogous to the effects of certain sudative medicines such as bleeding - purging - and low diet. — <sup>It</sup> ~~They all~~ acts by inducing ~~directly~~ debility. This has often been demonstrated in <sup>tonic</sup> febrile fevers - smallpox - mania & many other diseases of too much action. —

I know it may be said here in favor of the invigorating power of cold, that when we feel much debilitated by heat in summer, a sudden change in the air to a cooler temperature carries off that debility. Does not the cool air here act by bracing the



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body? - I answer - no, - to understand  
the meaning of this phenomenon, rec-  
-all what was said of the effects of heat  
when in ~~heat~~ depression.  
- It always produces ~~indirect debility~~  
by its excess. Let us suppose healthy  
excitement to depend upon  $75^{\circ}$  of  
heat according to Farenheit's Scale. now  
supposing the  $\mathcal{F}$  should rise to  $95^{\circ}$  or  $100^{\circ}$   
~~debility~~ <sup>disruption</sup> would immediately  
~~indirect debility~~ <sup>the System</sup> ~~be brought on, or~~ <sup>State</sup> of the System  
be brought on, or in this <sup>State</sup> of the System,  
let cool air be applied to the body suf-  
-ficient to abstract the  $20$  or  $25^{\circ}$   
of heat, <sup>which</sup> have been added to the  
 $75^{\circ}$ , the body will immediately re-  
-turn to its healthy point of exite-  
-ment, in consequence of which

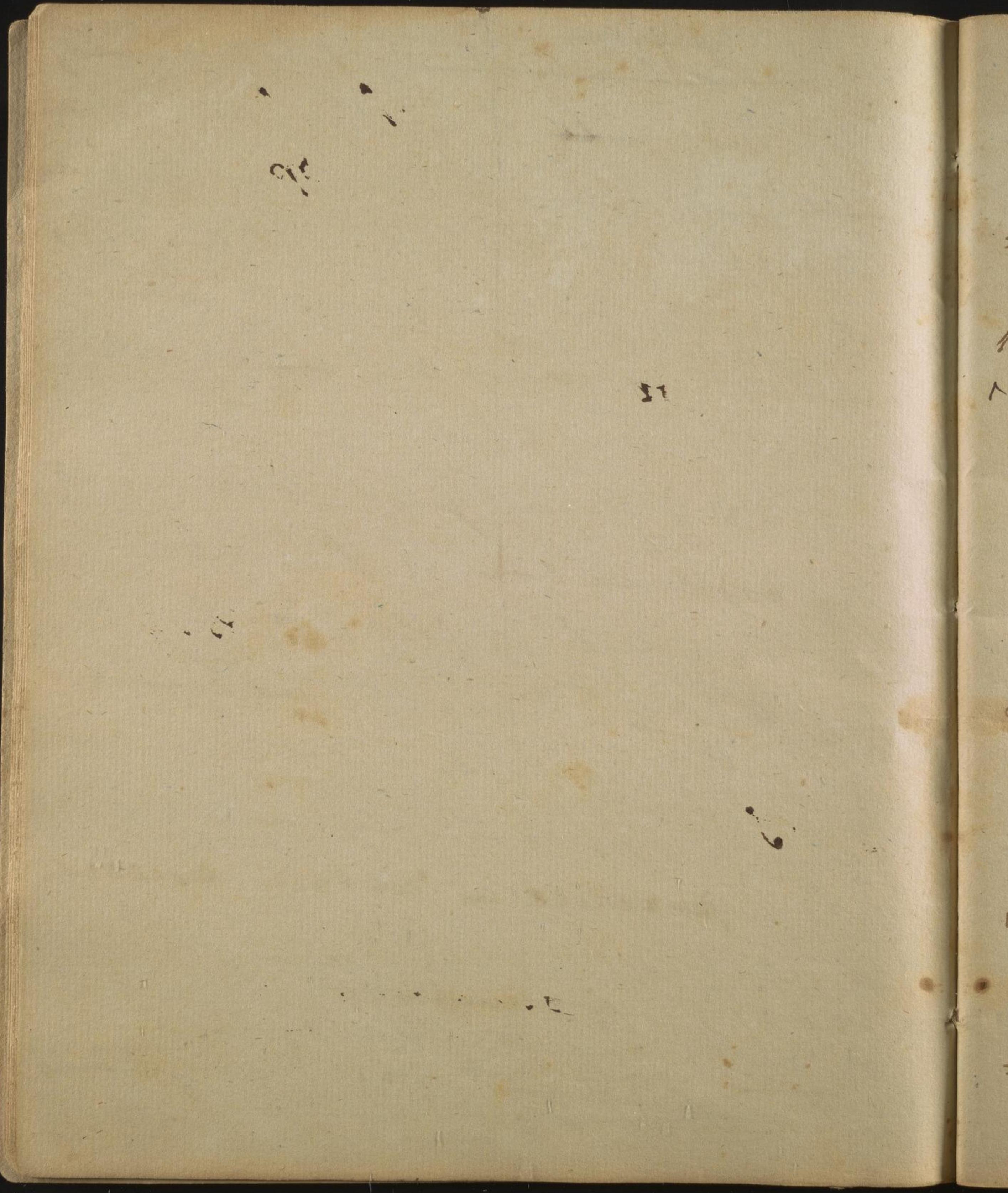


Dyspepsia 51

the ~~indirect~~ ~~ability~~ will be removed,  
& the body will feel a sensation which  
will be ~~mis~~ taken for the brac-  
ing effects of cold. The cool air only  
relieves the ~~lys~~ <sup>Dyspepsia</sup> tension from its ~~indirect~~  
induced by rays of stimulus  
~~ability~~ and restores to it <sup>its</sup> healthy  
or tonic degree of heat. —

I beg of you great to attend to  
this explanation of the supposed  
bracing effects of cold, for it is a  
key that <sup>unlocks</sup> the <sup>arcana</sup> ~~arcana~~  
phenomena in <sup>of</sup> many diseases, and relieves us  
from many of the absurdities of Dr.  
Brown's practice in certain diseases.

If the pulse low - and scarcely to be felt,  
the beginning of <sup>or yellow fever</sup> ~~or~~ <sup>or</sup> <sup>misnomer</sup>  
is a pleurisy. This depends upon  
~~depression~~ <sup>Depression of</sup> <sup>or</sup> <sup>or</sup> <sup>misnomer</sup>  
~~or sensitized~~ <sup>or</sup> <sup>or</sup> <sup>or</sup> <sup>misnomer</sup>  
~~indirect~~ <sup>or</sup> <sup>or</sup> <sup>or</sup> <sup>misnomer</sup>  
induced by pain. If



it raised  
it removed by <sup>57</sup> Os. ? This depends  
upon those degrees of pain being abstracted  
which produced the ~~indirect debility~~ <sup>or stimulus</sup> Oppression.

Is the system ~~so languid that in~~ unusually weak  
at the beginning of a bilious fever, ~~that~~ This frequently  
depends on ~~indirect debility~~ Oppression. - Is this  
weakness removed by an emetic ?

This depends upon the abstraction of  
the stimulus of the bile from the  
Stomach which produced the ~~indirect~~ <sup>Oppression.</sup>  
~~debility~~. - I am disposed to suspect  
~~that~~ The weak pulse which <sup>sometimes</sup> occurs  
in the beginning of Spleen & apoplexy,  
is frequently produced in like manner  
by great Oppression, hence  
never by ~~indirect debility~~, ~~but that~~  
Os. seen in such cases would be

✓ It affects the lungs breast whin  
very intense with great pain. This  
was sensibly felt by the academicians  
who went to measure a degree near the  
North pole. -

Be

a most effectual remedy to remove  
 It acts  
 it by abstracting ~~excess~~ of stimulus;  
 than the usual stimulating remedies  
 which are prescribed in that state  
 of the system. I have heard Dr. Phillips  
 once saved a patient in an Apoplaxy  
 who had this weak & slow pulse by  
 taking from him ~~big~~ of blood. The  
 in these cases  
 pulse sometimes descends to 40 strokes  
 in a minute & is again so weak as  
 scarcely to be perceptible. —  $\oplus$   
 The I shall now proceed to mention  
 the positive  
 effects of Cold upon different parts  
 of the system.

On the arterial system it produces  
 debility and exirability. It ~~appears~~ while it  
 weakening the nervous fibres, it seems  
 to enervate the cohesion of the simple  
 fibres of the body. It dispenses to all  
 kinds of fever, even Intermittent.

For this argument to be true, should ~~not~~ be reciprocal in its influence upon the master as well as the slave, for the effects of cold are the same upon the wills of each of them.

+ a stimulating power in cold, but this is not the case. The pain is the effect of the ~~as~~ reactions of the system to such a degree as to produce morbid excitement in the part affected. In some instances the heat of the body ~~is attached~~ <sup>passes</sup> to the cold part <sup>in</sup> so much force in order to equalize itself that it becomes the cause of that morbid excitement & pain. It even produces info inflammation in some cases. ~~causes~~ By

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2 It produces languor & induces position to motion in the ~~in~~ muscles organs of voluntary motion, - hence some writers have said that the inhabitants of cold countries ~~are~~ like those of warm, were made to be slaves. - having no <sup>stimulate</sup> wills to move <sup>↑</sup> towards exercise, they say that they should be stimulated into action by the wills of <sup>a master.</sup> ~~the people.~~

3 It dulls ~~excitation~~ <sup>affects</sup> in the nervous system, ~~but~~ when very intense, ~~it has~~ ~~done~~ "pain, in the ~~head~~ - sleepiness & whether excited in the head or limbs death. - This Boil has been ascribed to +

4 It invigorates the appetite, especially for animal food. Horses eat more in cold than in warm weather. The stimulus of aliment seems to

The long application of cold, insensibility is  
so far destroyed that wounds upon the  
soles of the feet from broken glasses ex-  
-cite no pain: This has been noticed  
by me in his travels to the north  
part of our country.

Hence it is said to be stimulating - but  
the stimulus is from other causes to  
obliterate its debility. It frequently  
increases the secretion & flow of  
Urine - hence Dr Sydenham's  
mode of using it. —

counteract the debility induced by  
the cold. It even ~~causes~~ awakes appetite  
in the middle of the night - in hot climates.

5 It weakens the Animal appetite.

Perhaps this languor in this appetite  
may arise from the infliction of the  
difficulty of <sup>supporting</sup> subsisting children in a  
country where provisions are less abund-  
-dant than in warm countries.

6 It renders sweating difficult, and  
uncommon, but when so moderate  
as to prompt to exercise - it promotes  
insensible perspiration. It produces a  
dark color in the skin.

7 It is unfavourable to vision, but  
this is probably owing to its being

generally accompanied with <sup>the</sup> reflections  
of the rays of light from the snow.

8 Cold debilitates the faculties of

9 v It is said to dispose produce the  
~~disease~~  
Sunney. This, depends partly on  
weak solids, & partly on vitiated  
fluids. If the want of sufficient  
exercise may weaken the solids, &  
an undue proportion of animal  
food may induce a morbid serimony  
in the fluids. - But other causes to be  
named hereafter must cooperate w.  
cold to produce the Sunney. - [go to p 66  
& proceed to ~~pp~~: 68.]

+ 10 ~~the~~ cold  
~~remains, the~~ ~~same~~ effect  
~~of cold upon the body to be more~~  
~~pronounced in this place, & that is, after~~  
~~that degree which~~  
~~induces palpitations, by contracting the~~  
~~veins, it produces a~~

the mind, but this is probably owing to the languor it imposes on the body. <sup>v</sup>

= These are the ordinary effects of cold. But when it is ~~sudden~~ <sup>sudden</sup> ~~preceded~~ <sup>the reverse</sup> by heat ~~it~~ <sup>generally</sup> becomes heat of summer always predisposed to a ~~acute~~ <sup>acute</sup> cause of inflammation. - it generally produces a train of bilious & febrile diseases. - I have twice seen ~~several~~ <sup>hundred</sup> people indisposed in our city from ~~a~~ <sup>the</sup> cold ~~sights~~ <sup>weather</sup> coming on in a single night in the month of August. The difference in the thermometer: in a few hours was ~~from~~ <sup>from</sup>  $20^{\circ}$  to  $30^{\circ}$ : - The ~~previous~~ heat <sup>heat</sup> then shall we expect for the cold <sup>coming</sup> so differently here from <sup>as</sup> it does in

redness in the skin. This is the effect of such a deadness induced in the cutaneous vessels by the cold, that the blood rushes into them and forms ~~those~~ effusions similar to those which precede Gangrene, or ~~hemorrhage~~ <sup>hemorrhage</sup> ~~are pale-blushed~~ <sup>that bluish cold.</sup> Petechiae in pregnant <sup>that drinking & anger have the same effect.</sup> ~~persons.~~ " Cold in its a higher degree produces gangrene, or in other words total disorganization. ~~0 subbelow~~ <sup>X go to p. 56 on to 56</sup>

Nothing more happens here that what occurs is ~~a~~ <sup>an</sup> ~~side when distract~~ <sup>abstraction</sup> ~~ability~~ is induced by the sudden abstraction of any other stimulus. Eg: - ~~the~~ <sup>the</sup> ~~or~~ <sup>or</sup> loss of blood - the same quantity abstracted gradually produces neither convulsion or syncope.

① 12 ~~lethal~~ cold reduces not only the fire of plants. but of animals. The same ~~is~~ <sup>is</sup> seldom more than 4 feet high. ② Old trees bleed from cold. I shall conclude this head

the native of a hot climate who visits a cold one? - I answer, that the duration of previous heat, being only for a single summer, is too short to produce insensibility in the sentient extremities of the nerves, -

on the contrary it rather produces a greater sensibility - and some tone <sup>ch. tone</sup> natural irritability - which is easily ab-

-stracted by the sudden action of the cold, the cause of that degree of debility which is succeeded by pain - & hence a fever from the slightest irritating cause such as motion - or perhaps even thinking after-

-wards. Much is ascribed in these cases to a sudden destruction of the

~~It may have some~~  
~~Perspiration~~ ~~It has doubtless its effect,~~  
~~but it is probably only by destroying debility~~

Perhaps its action <sup>on</sup> the pores may be

the exciting cause of the fever - or perhaps the cold acts only by destroying the <sup>equilibrium</sup> of the system.

~~more disease, & more~~  
by remarking that there is ~~more~~ <sup>more</sup> animal  
~~& more disease~~  
suffering from Cold, than from any other  
evil that afflicts the world. ~~The cold creates~~  
~~animal creation~~  
Groans with ~~many~~ under its effects upon  
perspiration, health & life]. who can calculate  
the sufferings of Sailors, Soldiers & the labouring poor  
from ~~stuck~~ out of doors, and from the want of ~~freelss~~  
~~Clothing~~ within doors? But - the sufferings of animal &

✓ Pontoppidan gives us the same  
influence of the  
Account of the climate of Norway  
upon the human body, He says: -  
inflamm' fevers are uncommon there  
in the winter. — The month of Dec  
1798 very cold & very healthy.

+ nature do not end here, <sup>many</sup> ~~the whole~~  
~~lost to the world~~ <sup>perhaps</sup> ~~many thousands~~ <sup>or</sup> ~~millions~~  
~~die of cold every year~~  
& Birds ~~are~~ <sup>the</sup> whole brte creation  
in cold climates, groans with ~~more~~ <sup>under</sup> its  
& distressing  
painful effects upon perspiration, health  
and life. The diseases from cold are more

D. 58.

weather uniformly cold is generally healthy. The most healthy winter I have known in Shilada have been the coldest. I first observed this in the when a student of medicine year of 64, and have witnessed it twice since. Diseases of all kinds are as it were <sup>locked up</sup> ~~buried~~ in Canada during the winter, <sup>^</sup> unless once in many years when the air is thawed by a visit of warm weather. Dr. Guthrie speaks in high terms of the health & pleasure <sup>ch.</sup> reign in Rupert during the winter. Even the Catarrh (the constant attendant of our variable winters) is unknown during the cold weather of that northern country. The return of Spring, <sup>in those cold countries</sup> generally produces fevers

numerous, than from any other cause.  
It is ~~sometimes~~ at times a remote - ~~and~~  
predisposing - or an exciting cause of  
nearly all fevers, and however strange  
it may sound it is more so in warm  
than in cold climates. The night air  
in the less Egypt and the East & West  
Indies awakens into action the mias-  
-mata which produce nearly all the  
plagues - & yellow fevers & liver com-  
-plaints of those countries. In short  
there exists not a greater enemy to  
the health & life of man than cold.  
go to p 66 ≠

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but these fevers are of a peculiar  
kind. They are ~~unlike the common in-~~  
~~flame: — the fevers of middle lati-~~  
- trades and in many fevers they  
- rapidly <sup>into</sup> ~~into~~ <sup>run</sup> ~~gangrenous~~  
and of a ~~peculiar~~ <sup>peculiar</sup> nature. ~~How~~  
Shall we account for this? I an-  
- swer, that the arteris by being  
long under the pressure of the ~~action~~  
action of cold, lose that elasticity,  
and ~~expeditivity~~ <sup>expeditivity</sup> ~~which~~ is the foundation  
of inflam'd Action, and which is no  
less ~~expedit~~ <sup>expedit</sup> to be destroyed or suspended  
in <sup>than</sup> ~~than~~ minutes where the action of the  
cold is of a more transitory nature.  
In the diseases of cold climates, as  
well as warm, we see are generated

at.

~~V you will please to mark here  
the difference between the short &  
long application of~~

V - Hence we find the inhabitants  
of Finland & of other cold countries bear  
the heat of a Vapor bath ~~at nearly 200°~~<sup>to</sup>  
without feeling any painful sensations  
from it, and

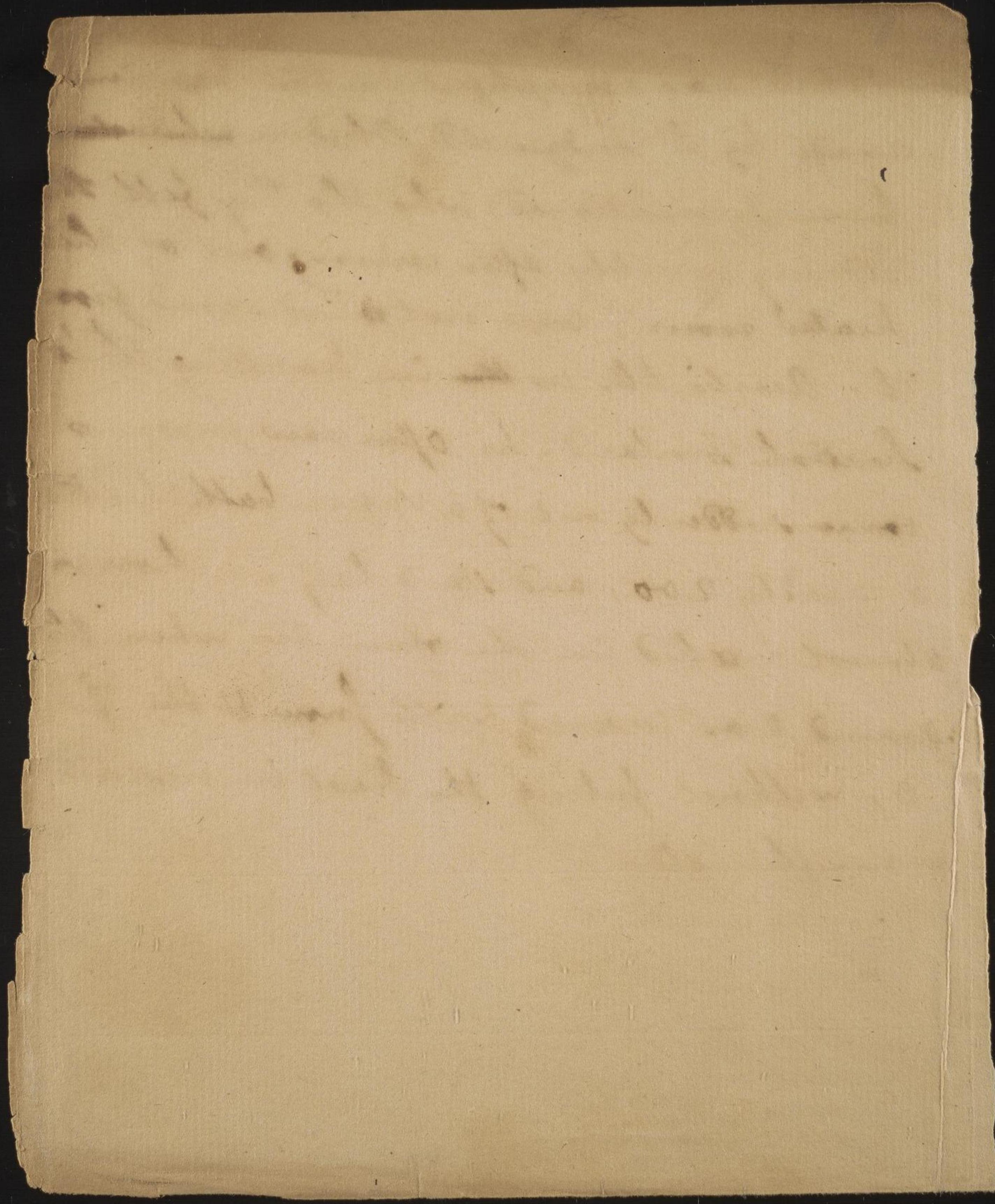
H The relative effects of cold are fur-  
ther evinced by certain animals perish-  
ing in a degree of cold in the fall,  
which revives them in the spring. In  
the former season the excitability of their  
systems is exhausted by the previous heat  
of summer - in the latter it is accumu-  
lated by the previous cold of winter. I  
marked ~~especially that~~ The body suffers much less in passing from  
extreme heat to cold, than from extreme cold to heat.

in one person, & brought forth in  
another. \* +

⑥ Cold produces  
~~If~~ <sup>60</sup> ~~soothes~~ after a while the  
same insensibility to heat, that it  
does to itself. Hence we find the Na-  
tives of Europe bear the heat of the  
West Indies much better than the  
natives of those islands. This insensi-  
bility to heat, is only to be acquired by  
the long action of cold, alternated  
with little heat, on the system. In  
a Climate like ours, we lose the  
insensibility to cold contracted by a  
single winter, by each succeeding  
Summer. The man therefore who  
attempts to fortify himself against

P. 6.

This was exemplified in the experiments  
made by Dr. Bory & Dr. Blaeden which were  
formerly mentioned, who tho' they felt the  
cold very sensibly after coming out of their  
heated rooms, were not indisposed from  
it. Aarbi tells us that in travelling thro'  
Swedish Finland, he often saw persons  
come suddenly out of a vapor bath heated  
to nearly 200, and stand half an hour  
almost naked in the open air when the  
ground was covered with snow, & the Blaeden  
& without feeling the least inconvenience  
from the cold. — ①



✓ You will please to mark here  
the difference between the short and  
long application of heat & cold to  
the body, & when succeeded by each other.  
Cold succeeding the application of heat to  
the body for a short time, produces fevers  
coleras <sup>titanus</sup> &c - But when it succeeds the  
long application of <sup>heat</sup> it produces scarcely  
any effects on the body, & is less sensible  
than in other circumstances of the  
from causes formerly mentioned, viz expan<sup>g</sup> & in  
system & again - heat preceding the short  
application of cold, produces inflam:  
fours - But when it succeeds the applica-  
tion of cold for 5 or 6 months it  
produces fevers of a nervous or  
gangrenous <sup>chomie</sup> ~~dangerous~~ <sup>dangerous</sup>  
~~patient~~ type. It would seem as if  
indirect and direct esterility were  
alike destroyed by the long continuance

the cold by ~~him~~<sup>light</sup> cloathing, will  
have his work to begin & do over  
again every winter. If he <sup>should</sup> acquire  
his long sought for insensibility <sup>to</sup>  
cold, it will be in the same way that  
a farmer taught his horse to live  
without eating. As soon as the poor  
beast became perfectly inured to his  
new discipline, — he died. —

The numerous & morbid effects  
of cold ~~liberates~~ <sup>the</sup> beast are not  
necessarily connected with a vicinity  
to the poles. On the contrary - health  
and long life appear to be as com-  
mon in cold countries as in  
warmer where men live agreeably  
to reason. If where life is contracted,

of deficiency / = supposes that more  
people perish from the morbid  
effects of cold succumbing to heat, than  
from the plague. This opinion is supported  
by many other authorities. Dr. Moseley says  
"however paradoxical it may appear cold  
is the cause of almost all the diseases of  
hot climates, to which alone Climate is  
necessary." p: 71. He adds further as a rea-  
son for this, that every person being weak  
from heat is under a predisposition to  
disease from cold.

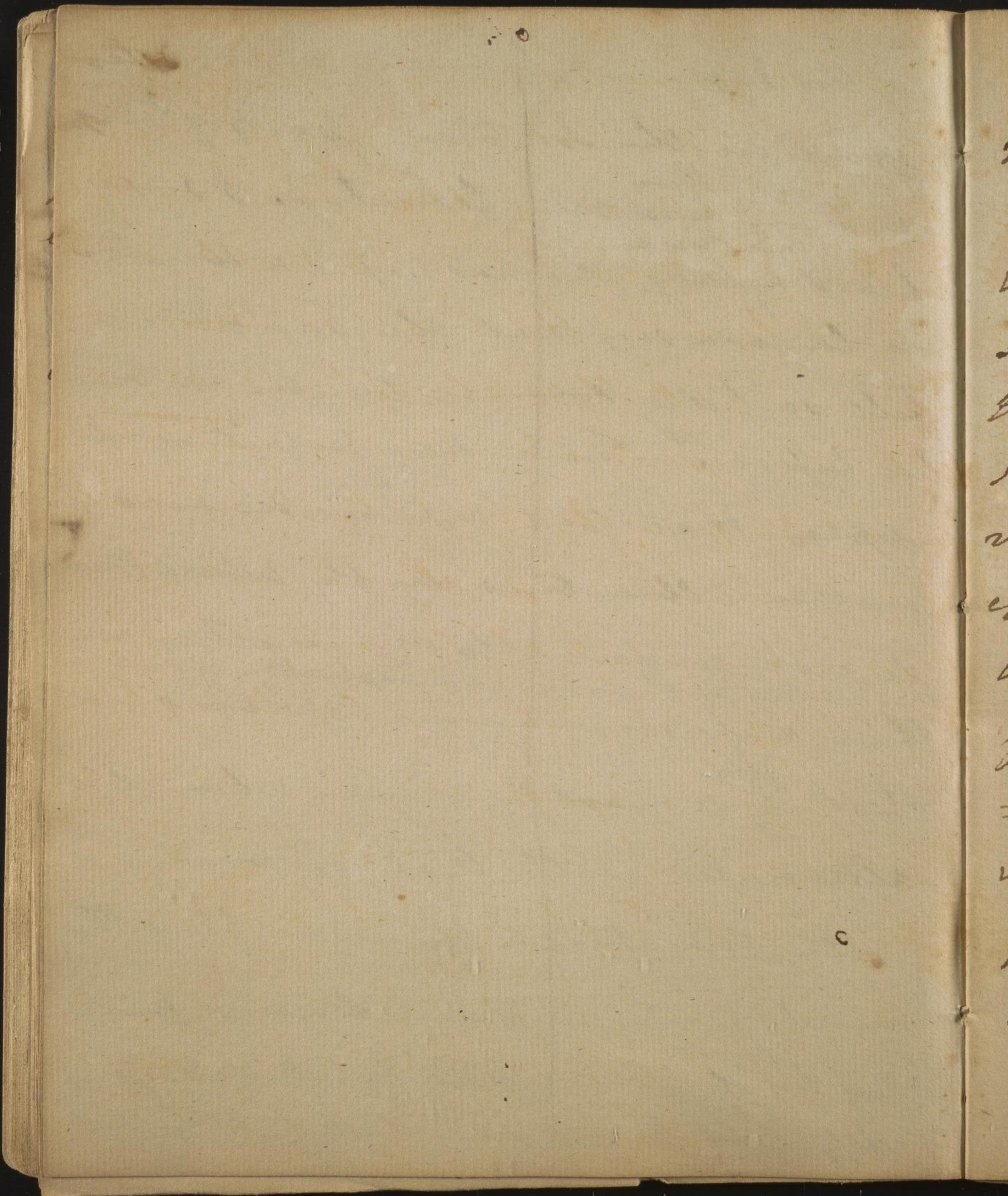
1st won Temple says it ~~must~~ not  
be ascribed to cold, but to the ~~use~~<sup>long</sup>  
use of those stimulæ such as Adunts  
Spirits, - animal food - & dancing,  
which are all used to, counteract it.

England where winters are short  
and ~~but~~<sup>and</sup> very ~~too~~<sup>long</sup> cold, & there are in  
many countries such provisions  
made against it as that it becomes  
the pleasantest season in the year.

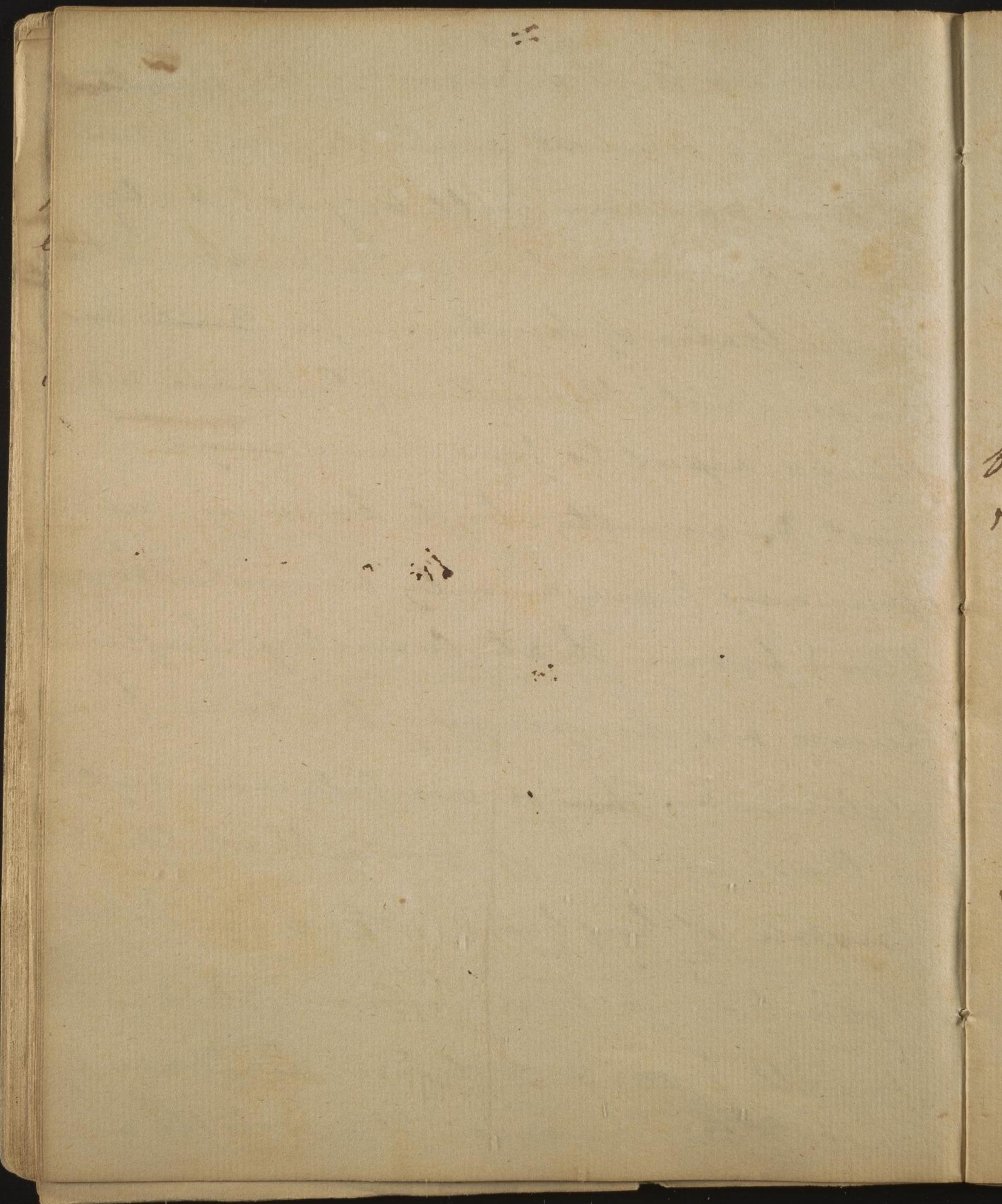
House with walls, - double windows  
- and stoves ~~at~~ at home - and  
furs and footstoves ~~abreast~~<sup>afford</sup> an  
ample protection from the cold in  
Canada and Russia. This is so much  
the case, that Duguthrie tells us  
that the Russians complain ~~of~~<sup>very much</sup>

✓ That in that country the effects of cold  
are obviated by stoves which pervade by  
means of pipes every room in the house -  
- by double glass windows - and by being  
enveloped in <sup>massed</sup> fur, when they exposed  
themselves to the air.

of the difference between a winter  
spent in the ~~southern~~<sup>their</sup> parts of Europe  
and in ~~his~~<sup>their</sup> own country. I once  
heard a lady who had passed a winter  
in Canada say that she had never  
felt so little cold in a winter in her  
life before. — From these facts it would  
appear, that cold produces diseases in  
northern countries, chiefly when men  
do not conform to the <sup>in the</sup> weather in  
the structure of their houses, <sup>application of fuel in</sup>  
their dress or manner of living, &  
that it is most injurious when it is  
alternated with heat, or combined  
with moisture. Hence we find the  
most acute inflammatory diseases produc-  
ed by it in middle latitudes. It is  
difficult to say in what latitude, it



produces these diseases in the greatest number & most acute degree, for a comparison will be just only when it is made between a people in the same state of society. — In Britain the variable climate of Britain we should expect to find them ~~most~~ <sup>sorely</sup> most frequently, but luxury — and effemacy have nearly banished vice & blood from that country. Inflammations are as yet very acute in Pennsylvania, <sup>therefore</sup> our citizens are in the same state of society that the people of England were in Dr. Sydenham's time, when Bleeding small beer, & cool air cured nearly all their diseases. If our fellow



citizens on the Potowmack, & even  
 in the States beyond it, do not bear  
 bleeding as plentifully as we do, &  
 we are disposed to ascribe it to their more  
 indolent and luxurious mode of living,  
 for in more northern climates the  
 frequency of the <sup>use</sup> of the lancet is the only remedy for most the  
 diseases of cool weather. Dr Leghorn  
<sup>from 1/6 to 1/2 a time</sup>  
 seldom draws up than  $\frac{3}{20}$  of blood in  
 a plunsey in Minneca. Dr Grise  
 says that nothing but vapors &c.  
 cured the pleurisies of <sup>the negroes in</sup> Jamaica even  
 in those cases where the pulse was  
 scarcely perceptible, & Dr Moor informed  
 me that after a <sup>with</sup> north west wind,  
 the <sup>Plunsey</sup> <sup>inflamm.</sup> <sup>causes of</sup> <sup>Chorf</sup> required as  
 plentiful bleeding as the diseases of

The climate therefore of middle latitudes is not necessarily unhealthy, - even the frequent changes according to Dr Hydenham may be considered healthy. It only requires more care & the care of more reason to enjoy health in such latitudes than in less variable climates.

Dr Hydenham's remark - nearly all suffers from neglect & indolence -

+ too a man dies in cold at 80° or 90° below 0 - when asleep - who lives when awake & in action when the cold is at 30° below 0.

this Country --

The effects of the sudden transitions of the air from heat to cold, & cold to heat on the body, do not necessarily produce diseases. - They may be prevented by <sup>a careful</sup> ~~such~~ degrees of caution in accommodations of our beds and bed cloaths to the changes in the weather. This is more necessary in ~~than~~ the Spring - summer, & Autumn than in Winter. I have known many thousand people indisposed <sup>with fevers</sup> from ~~waking~~ sleeping under too few bed cloaths, but never one person <sup>go on to p: 68</sup> ~~an~~ <sup>more</sup> ~~waking~~ in either of those articles.

The cold acts <sup>more</sup> ~~most~~ powerfully on the system in the sleeping, than in the waking state. Hence <sup>the foundation of</sup> nine out of ten fevers is laid in the night, & hence

L. L. 22<sup>d</sup>

Cold acts more powerfully upon the body when ~~empty~~<sup>the</sup> stomach is empty than when it is full of aliment - hence famine and frost frequently go together in sailors who suffer from shipwreck.

Old people suffer more from the cold than persons in middle life. Hence the reason why they are so often found paralytic, or dead in their beds in very cold spells of weather.

Cold acts powerfully upon persons addicted to the use of spirituous liquors.

Here the reason why they often yield the bills of mortality in the winter ~~thus lives to a cold night or~~ too well months. Three notorious drunkards have died in vicinity in the course <sup>Feb. in the winter of</sup> of the last five weeks, & two of them during the coldest week in ~~last~~

✓ fact of Lake Superior by 3 - never  
fuses - vapor fuses in the air about  
the face. See p: 88. of 4<sup>th</sup> Ann: / plau b:

68

~~Received from Jan: 1792], & all with~~  
~~great Diseases of great debility. Turn-~~  
~~hards are generally chilly, when not under the~~  
~~Child soon passes from the vigor of~~  
~~Life from loss of strong drink.~~  
~~At ~~the~~ formulae in strong cold acts but~~  
fubbly upon Children, from the vigor  
of their stimuli. I have heard of an  
Indian woman being found frozen  
to death ~~but~~ with a living Child on  
her back. — return to = p: 56. —

+ Moisture increases the sedative  
effects of cold by conveying off more  
of the heat of the body. So the cold of  
Great Britain at  $30^{\circ}$  is much more  
disagreeable than the cold of Pennsyl-  
vania at  $10^{\circ}$ . The Rupian factor  
who spent part of the winter of 1771  
at ~~Elgin~~ Portsmouth declared that

¶ The air of Holland owes its unhealthy quality to its moisture. This is so great in the evening & at night as to make the days of winter necessary in midsummer. - Dr Franklin denies that we take cold from moisture even from sleeping in wet sheets - but this is contrary to ~~all~~<sup>any</sup> reason & observations. ⑩

✓ The cold hand of a physician will often produce a short rigor in the whole body of a patient, & I know a gentleman who ~~is subject to a~~ ~~laborious~~ ~~and~~ cough, who can excite a fit of coughing at any time in the night only by putting his hand out of bed.

Geoffrey.

¶ There is an old man in this city of the name of Godfrey Wilkes who can predict the approach of moisture, that is rain, in the atmosphere by a sickness at his stomach. A similar fact is related by Dr Darwin, <sup>many</sup> Birds ~~probably~~ have this sympathy with

moist  
the cold of England<sup>69</sup> was far more  
distressing, & insupportable than the  
worst weather they had ever felt in  
Russia. — #

Cold. ex acts more or less certainly,  
upon the body, according as it acts on  
the whole or a part of the body, or upon  
a part which has been confined from,  
or exposed to the action of the air.  
- cold feet often produce tetanus - colic -  
and even palsy & apoplexy. & current  
of air against the back often produces  
tremor & stiffness & inflammation in that  
part of the body, and I ~~once~~ knew a  
young woman who caught cold only  
by leaving off a ribbon which she  
which Kellogg takes gold by means of his slip-  
per usually wore on her caps. The abstraction  
of stimulus in a plant, cold in these

~~1 told inducing Gangrene on the  
limbs. How? — the remedy — accom-  
modated to editability.~~

~~approaching rain — hence the peculiar  
& motions  
Noises they utter before it comes. Ducks  
seldom fail to indicate wet weather by  
rising from the ground & clapping their  
Wings. This sympathy natural to birds  
is acquired in many Chronic Diseases to  
all the changes in the weather in the  
human Species. It is a kind of superadded  
sense. ~~go to p. 71. 0~~ In health we have a  
sensation of an approaching fall of snow.  
— Hence the common saying — "It feels like  
snow" go to p 71. 0~~

70

cases, enters the action of other stimuli  
to restore the equilibrium of system.  
The fever is the effect of too much  
action for this purpose. It is from  
having so often seen the ill effects of cold  
feet - that I seldom give my advice  
in a chronic disease, ~~that do not~~ without  
charging my patients to keep their  
feet warm - for by <sup>the means of</sup> the ~~feet & the mouth~~ mouth,  
I believe we remove 9 out of 10 of all  
the diseases to which the human body  
is exposed. -

Thus far have we viewed the effects  
of heat and cold, in their simple <sup>States</sup> ~~case~~,  
and combined with moisture.

666 The same degrees of cold are  
more sensibly felt in windy than  
in calm weather - owing to the

~~positive & relative~~  
✓ The effects of heat and cold are very different in sickness from health, & vary according to the stages & states of diseases. of this hereafter. ~~more~~ ~~back to~~ They not only suffer from this pressure, but they have a proportionality of their approach. turn back to p. 69  $\pm$

W Thus in the winter they dispose to diseases of the head - in the Spring to the lungs, and in the summer & autumn to the alimentary canal. ~~This~~ <sup>The actions</sup> ~~processes have~~ of the seasons on ~~human~~ <sup>health &</sup> life you has been compared to the different stages of human life. ~~Winter~~ <sup>to</sup> The winter has been compared to the infancy - Spring to youth - Summer & A to manhood - & Autumn to old age. It is remarkable the diseases produced by each, are the diseases of those 4 stages of life.

71

Wind carrying off the ~~masses~~ heat of  
the body discharged with the inen-  
-sible perspiration. I think I have  
often known cutwounds & other in-  
-flammable affections induced by windy &  
than calm cold weather. — ✓

o Thus far have we examined the  
effects of ~~heat & cold~~ <sup>the air</sup> upon the body,  
as far as they relate to their sensible  
qualities. But they both act differently  
in different seasons <sup>in part</sup> and even in  
act differently in  
& different months in all middle  
latitudes. They act differently in  
towns & countries - in cultivated  
& uncultivated countries, but this de-  
-pends, <sup>in part</sup> on the combination of the  
-air with certain ~~iseps~~ exobidisha-  
-lations

~~V. Being in winds, from all quarters in  
diff' Countys & other influence on health next  
year.~~

~~For next year~~

72 under

If therefore will come in our next  
head. I shall only mention the effects  
of the sensible <sup>qualities</sup> ~~of~~ effects of the Air in  
seasons & different months. In some one of  
the seasons, the Air is rendered ~~unhealthy~~  
by moisture <sup>in</sup> exhalations. This shall  
be mentioned in its proper place.

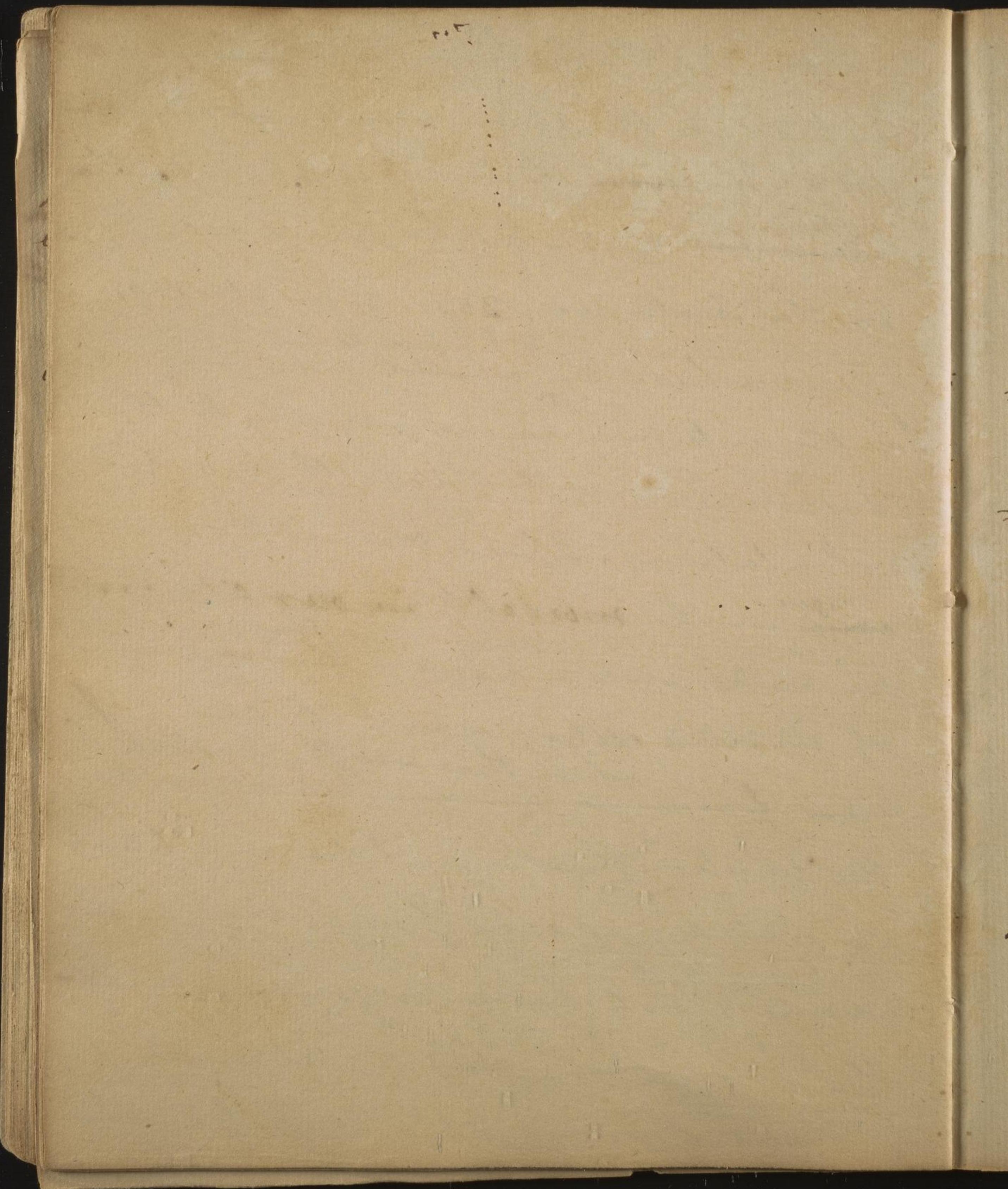
¶ To exhibit the influence of seasons  
and months in a climate nearly similar  
to our own, I shall furnish you w:  
an extract of a Journal of the deaths  
in the Parish of St Nicolas in Boulogne  
on the Sea, <sup>in the lat: of 50°</sup> between the years 1776 and  
the year 1783. It is taken from D'Agren's  
tables of the variety of human life - a  
curious & interesting work  ~~lately~~ put  
into my hands by Mr Jefferson & I shall  
first give the amount of all the deaths

v the same taken notice of by Dr  
Heberden Junr. in London. in his Work.

73

in each of the seasons that ~~were~~ are  
included in the above mentioned seven  
years. In seven winters 365 - in the  
springs 292 - in the summers 277. -

In the Autumn 357. - in all 1291. -  
you see here the <sup>2nd degree of</sup> greatest mortality is  
in the Autumn - owing probably to the  
combination of the air with morbid  
exhalations. I have observed the same  
~~degree~~ in the mortality in our city in  
the autumn - and from <sup>the</sup> this a mixture  
of morbid effluvia with the air. - The  
next season ~~in~~ <sup>the</sup> the number of deaths is  
the winter. This is unlike our climate  
in ordinary years. I suspect some epi-  
-demic must have co-operated with  
the cold in some of the above winters.  
- The Influenza - the measles - and

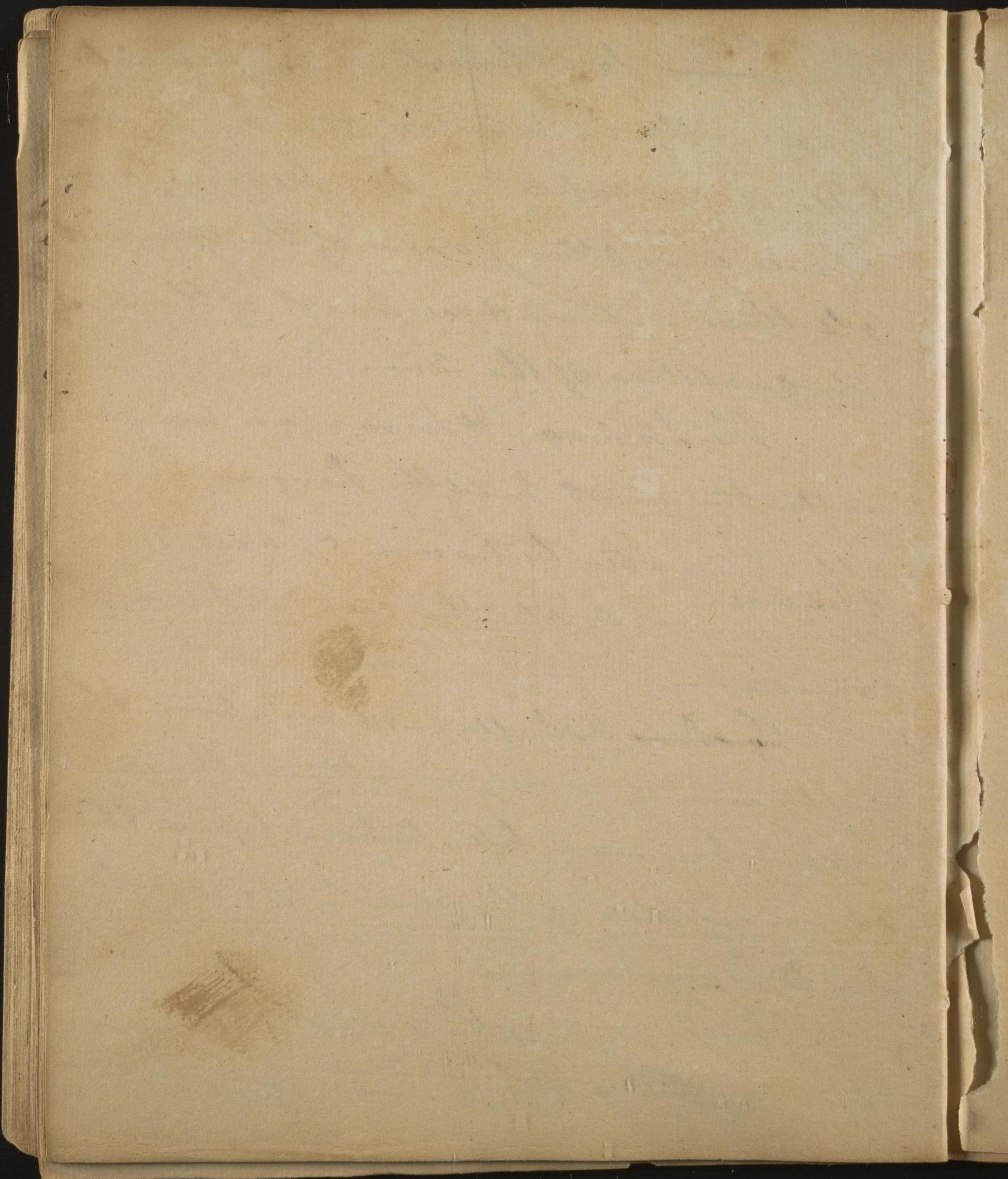


the malignant <sup>74</sup> pestilential fogs at which prevail  
frequently in winter, often well over  
tolls of mortality in that has on far  
above any other season of the year, but  
all these act independant of the uni-  
-ble qualities of the air. —

The Spring & Summer are gene-  
-rally the most healthy seasons in  
all climates between 50° and 35° —  
of latitude.  
It is remarkably the case in Pennsyl-  
-vania. —

London I shall next mention the  
influence of very warmth in the year  
upon human life, taken from the  
same register of the parish of St. Nicolas  
by Dr. Daignan. —

In January there died in the course  
of seven years 142 persons, of whom



From a review of the influence of the Weather in each of these months, it appears that the most sickly of them was Jan<sup>d</sup>.

- This is not common in the middle states except from Epidemics - or except in open winters. The principal mortality in this month when intensely cold is among old people and persons previously debilitated by Ardent Spirits. -

Feb: and March appear to have been very sickly, nor did the mortality abate much in April. Then The weather in these months is very variable, and often proves fatal to chronic patients especially to persons afflicted with the consumption. The inflammatory diseases produced in these months

V This Doctor expresses the same  
idea in other words. He says that  
the diseases of winter are seldom  
met with in summer, & the disea-  
ses of summer are seldom met  
with in the middle of winter. Van-  
~~an important Observation~~ - Sivertin says  
that <sup>the</sup> heat the time in w: <sup>the</sup> annual fevers shd.  
begin as at the vernal & autumnal equinoxes,  
but that they are abated, & ~~postponed~~ <sup>postponed by</sup>  
the weather - hence the former <sup>sometimes</sup> appears in Feb:  
& the latter early in Mar: - They are said to

seldom prove fatal in our climate.

June and July are the most healthy months in the year. The same observation applies to the climate of Pennsylvania. <sup>The latter</sup> ~~July~~ <sup>end of July</sup> is sometimes fatal to children - but I have uniformly observed June to be the healthiest month in the year <sup>in this city.</sup>

As ~~said~~ Dr. Sydenham says that the diseases of winter spend themselves in June - and the diseases of summer in February.

I believe there is a foundation for <sup>this same remark of the middle</sup> ~~his~~ remark in <sup>our</sup> ~~the~~ United States of America.

Most of firs bear blading in May, and most of ~~them~~ the pines of ~~deciduous~~ the <sup>deciduous</sup> Deciduous: Jan<sup>Y</sup>: and Feb: exhibit marks of the ~~committ~~ - & winter-  
~~committ~~

Piguet most frequently antidated. hence he  
says a medical Spring should begin on the  
12<sup>th</sup> of Feb: Summer on the 12<sup>th</sup> of May. Autumn  
on the 12<sup>th</sup> of August, and Winter on the 12<sup>th</sup>  
of November. -

fevers more especially in discharges of bile. Now - according to this remark the healthiness of the month of June may be ascribed to a kind of Solstice in diseases. - They seem to pause for a few weeks - but it is only to <sup>ex</sup>change one set of destroying ~~weapons~~ <sup>in</sup>struments for another. -

The months of Sept & August is more sickly by our table than July - 85 - The proportion of deaths in that month is much greater in our city.

The months of Septem<sup>r</sup> & Octob<sup>r</sup> and Novem<sup>r</sup> are next to infatality morta-<sup>lity</sup> to the winter months. This is probably owing in part to inhabi-  
-lations, but much of it may be as-  
-cribed to the contrast between the

This air by its coldness & dampness  
renders riding in the night much  
more fatiguing than in the day time,  
for they both produce great direct debility.  
Mr Bruce speaks of the damp night air  
after a hot day affecting even the mind,  
for he says the Sailors who conducted  
him up the Nile, always discovered strong  
marks of weariness as soon as the chilling  
night air began to act on their bodies.

Colds are more frequently taken by ex-  
posure to the night air than in any  
other way. In Spain it is often caught  
by swimming. Hence says Brydone it  
is gallant to make love in that country  
only in a hoarse voice. The yellow  
fever is often excited by the night air  
than by any other cause —

dry & warm air of the day, & the cold  
and moist air of the night. — The  
sickly and mortal season begins in  
Pennsylvania about the 20<sup>th</sup> of  
August. It is partly occasioned by  
exhalations, but chiefly by the damp  
evening air to which our citizens  
expose themselves in their summer  
dresses. The quantity of dew which  
falls after this time is so great as  
to resemble ~~the~~ a gentle rain. It fre-  
quently sets springs which have  
been dried up for six weeks a flow-  
ing. — This <sup>continues</sup> ~~continues~~ nights  
continues till the frosty <sup>comes on</sup> comes on,  
unless heavy rains should fall in  
the mean while, <sup>for</sup> they both abate

~~✓ The evening air is favourable~~

✓ ~~that~~ Under the head of the sensible Qualities of the air I mentioned its rarity & density.

Air highly rarefied such as exists on the summit of ~~the~~ <sup>very</sup> high mountains ~~is~~ <sup>produces</sup> many ~~use~~ <sup>hence</sup> distressing symptoms. & such as great muscular weakness. ~~This~~ person in ascending them near their summits are often obliged to stop for <sup>the</sup> ~~the~~ <sup>order</sup> to rest. ~~This~~ <sup>the</sup> ~~same~~ has often been felt on the Alps. Even the <sup>men</sup> which ascended them were affected with a similar immobility of their limbs with men, and with great difficulty of breathing - panting, & the emission of plaintive cries. Laupsire <sup>walking on the summit of</sup> sagging, <sup>as</sup> ascending Mount Blanc in Switzerland ~~that~~ he could not advance 15 or 16 steps without stopping to take

80.

check bilious diseases, - this and both  
in the same way by destroying morbid  
exhalations. \*

The table which I have read to you  
will furnish some very useful remarks  
on the influence of the remote causes  
of diseases on persons of different ages,  
and conditions, but this will come  
in the place marked for it in our lab-  
oratory. Go to h<sup>o</sup> 3 new copy p. 1.

Now we come now to speak of differ-  
ent impregnations of the Air as remote  
causes of diseases. and  
of marsh effluvia, These are a  
fruitful source of diseases. Two circum-  
stances are necessary to produce them  
& vegetable & animal substances.  
viz heat and moisture. The heat to  
be sufficient must be ~~great~~ <sup>great</sup> & the  
moisture ~~great~~ <sup>great</sup> & the heat to  
be sufficient must be ~~great~~ <sup>great</sup> & the

breath, the  $\frac{V}{2}$  at this time in the Barometer stood at 12 inches. ~~Other~~ effects of these great altitudes are a quivering of pulse - palpitation of the heart - sickness of the stomach - fearing of food - ~~and~~ <sup>prolonged</sup> great thirst, and an accession to spirituous liquors - all these effects of breathing this rare atmosphere go +

There was there as yet any quantity of vegetable matter on the ground to putrefy, & mix w: the animal matter.

+ off after resting a few minutes, but  
return with the least exertion. ~~These~~ These  
~~symptoms~~ have been attributed to a  
deficiency of oxygen in the upper regions of the  
air, and a <sup>more rapid</sup> consumption of it ~~beyond the~~  
~~proportion~~ the combustible matter in the  
blood - such as I said formerly constituted  
the <sup>impure</sup> ~~air~~ discharged by Respiration. In  
addition to the effects above mentioned,  
Scrupule <sup>takes notice of</sup> ~~notices~~ two others viz  
slippings, & great pain from the action

81

continued for some time. I said that  
moisture must be combined with this  
heat, for the rays of the sun shall  
nothing unwholesome from the dry  
ground, nor from marshy ground when  
it is covered with <sup>The sun with its rays in</sup> a bed of water <sup>in</sup>  
<sup>Egypt</sup>  
So to show that heat is essential to  
the production of marsh miasma, I  
shall relate the following fact. Some years  
ago the meadows below this city were  
in the month of April  
overflowed, and many animals as well  
as fish were left dead on the meadows  
after the reefs of the river. No rain was  
sufficient looked for after it - for all  
yet there was not heat enough to pa-  
-ticipate these animal matters, or to ex-  
-hale them in the air. This fact was

of the Rays of the Sun Shining Directly upon  
the Skin.

~~The Air is so dense as to  
create great changes in the body, except it  
sometimes disorders the body. Invalids  
are most sensible of it. Mallette a French  
writer ascribes a number of sudden deaths  
which occurred at Paris in 1747 to a  
sudden change in the height of the Air. Old  
that the Air fell suddenly from 28 to 28.8 inches - each  
of the 2 or 3 days fell suddenly from 28 to 26.8  
with a diminution of 1000 pounds of Air. Old.  
That is to say that Pains of Rheumatic Pains  
are often made worse by a sudden diminu-  
tion of its weight. - OP. 80~~

+ Dr Baron Humboldt who ascended to the  
summit of the Humboldt, the <sup>highest</sup> mountain  
tain 20,000 feet above the level of the Ocean,<sup>in S. America</sup> of course the highest mountain in the world,  
the rarity of the Air produced he informed  
hemorrhages from his <sup>nose</sup> mouth & lips, a  
red of his eyes, sickness at his stomach,  
& a pain in his breast which continued

was communicated 82

and proposed to me by the late Dr. Dr.  
Bond, but without the explanation  
have given of it. <sup>Some time</sup> ~~About~~ <sup>five</sup> years ago,  
a similar fresh happened in those mea-  
-dows in the month of May or June.  
From the full operation of heat at  
that time, & guided by the event of  
the inundation in April I ventured

to predict that no extraordinary fish-  
-ing would follow, and the issue was  
equable to this opinion. Many facts  
might be mentioned to prove that  
exhalations  
fluidity from fluid bodies of water do not  
produce disease. Mr. Bruce ~~in~~ remarks  
in his travels that rainy seasons w<sup>ch</sup>  
perfectly covered the low grounds were  
never unhealthy in one of the sickly

✓ & Darsilles in his account of the  
diseases of the negroes ~~remarks~~ that  
at Cayenne when ~~there is~~ much rain &  
duly overflowed, the people are most  
healthy - but at P<sup>r</sup> Domingo it is the  
reverse - When there is much rain,  
and no morapies <sup>to</sup> overflowed p: 107

— several days afterwards. His pulse  
of cold was very great, altho' the  $\mathcal{F}$  was  
between 40 & 50 of Fahrenheit. By his  
indications the quantity of Oxygen was  
reduced to 19 parts in the 100. First of  
the fineness & softness of the ~~from~~ <sup>team</sup> back to open  
go to p. 82. 0

~~In winter the varieties of  
Basswood in Franklin County  
the last p 3.~~

~~the last p 30~~  
and excessive in Density, that is above 28 [by  
compressing the lungs under the efflux of the

83

countries which he visited. In the Delaware state heavy rains by overflowing the low grounds have in one instance prevented a sickly fall. In the same season bilious fevers were common in the high grounds of Pennsylvania - for here the rain was only sufficient to produce moist Ditto in 1804 four years on Banks of Susquehanna, but there. The sicknesses of business frequent the same in 1806 - great Rains & Drought tho' U.S. healthy, by depend on very slender circumstances, which if lightly attended to, lead to a conclusion that there are no fixed principles with respect to the generation and action of morbid <sup>microscopic</sup> ~~inflammation~~ <sup>microscopic</sup> ~~inflammation~~ <sup>which</sup> perfectly dries the low grounds & on perfectly covers them with water will generally be healthy. Superficial observers who consider heat & rain as

I have said that heavy rains  
which cover the ground with  
water prevent exhalation, but  
I have <sup>borrowed</sup> from Dr. Davidson in  
my 4th vol. of Inquiries  
mentioned a case in which a  
heavy rain promoted exhalation,  
i.e. by destroying the green covering  
completely  
which had covered a pond of stag-

N.B. Humboldt mentions that  
watering water. ~~water~~  
Rain on the west coast of Africa induces fevers - perhaps  
from some cause. It is remarkable that in 1784  
close swamps where there is no  
exhalation, there are no fevers  
or intermit. fevers. The access of the  
sun to these swamps is necessary  
to their producing disease. ~~water~~

It is most hurtful where salt and  
fresh water mix in the Southern states.  
Mellicot.

under relative circumstances, 84  
~~Genaro & other species, wood cutted~~  
from this to doubt the efficacy of both  
in producing disease, and to ascribe  
~~they know not what,~~  
them to ~~they know not what result~~  
~~well~~  
~~Quality in the air, & to the fruits of~~  
the season, ~~by attending to moderate~~  
degrees of rain ~~which~~ produce moisture, &  
those degrees of heat which do not sud-  
denly dry the ground, that ~~generate~~ produce the  
~~effluvia inassimilata~~ ~~which~~ produce bilious  
and intermitting fevers. Fresh salt  
water mixed in marshes most apt to produce disease.  
The matters which are exhaled are  
of said to be of a animal & vegetable  
matters, but many facts <sup>prove</sup> repudiate this  
- belief that they are chiefly of vegetable  
They operate ~~perhaps~~ are often combined.  
origin. ~~not~~ often observe animal  
but each acts separately, as I shall say directly, go to  
matters probably in the neighbourhood  
of towns without producing a single

Here enumerate them. from vol 4 of Enquiries.  
D ~~I have hitherto spoken only of marsh~~  
~~then go to B & H p: 86~~  
miasma as the remote cause of disease,  
but many vegetable matters in a state of  
putrefaction produce the same effects. I  
shall briefly enumerate them. 2 cabbage.

IV Gemini's facts, & Dr Johnson's at  
Surat in India 3 potatoes - 4 pepper  
5 Indian meal. 6 onions. 7 mint. 8 dried  
& Caraway Seed in the hold of a ship. 9 Coffee  
Planted in 1793 & 1798. and in Jamaica in 1793.  
10 Cotton. 11 Humps, flex & straw. 12 canopy of  
an old tent. 13 old books, old paper money.  
& hats in the 2<sup>nd</sup> year of strong.  
14 The timbers of an old house & 15 green  
wood. 16 green timber of ships. 17 stagnating  
air of hold of ships. 18 Cellars. no other doors or  
& chimneys left in them. 19 Bilgewater. Dr  
Rowley. Gutter - Dark - Stagnant water. 20 air  
generated by stirring ~~for~~ pond water. 21 a  
dead  
hogstye. 22 Duck pond. 23 weeds  
near a horse. 24 the ocean. 25 ~~the~~ plank.  
are. 1 Human dead bodies. ~~dead~~ 26  
-carts. 4 fish 35 Raw hides. 4 putrid beef.



~~It is remarkable that in swamps where there are exhalations people work & enjoy good health.~~

~~It has a malignant fever was lately prod. in Newburg port in 1796 by the effluvia of putrid fish. A putrefying whale once prod. what is the nature of these fevers?~~

Varasmath? - From the effects of fires & burning & in destroying them they have been supposed to be animated or organic bodies. This may be the case, but it is not my business to decide upon this question. It is remarkable that mosquitoes and other insects abound with bilious fevers. - But later observations have taught us that in they contain a large portion of Hydrogen on which their action depends. -

~~Fatuous Bilious fevers which are produced by marsh exhalations.~~

circumstances produce diseases. ~~Dr~~  
~~John Pringle has established it.~~ ~~He~~  
 & turn back to 85-

~~1. On what part of the body do these winds  
 turn over to p: 87 1<sup>st</sup> & 2<sup>nd</sup> ① on the arterial sys-  
 tem in which they act as stimulants.~~

~~This stimulus in this case is generally  
 direct only, in which case a fever of  
 violent ~~explosive~~ action is induced when the  
 stimulus of the environment exceeds  
 the force of ~~direct~~ <sup>great</sup> ~~stimulus~~ <sup>it</sup> produces  
 indirect debility hence various fevers  
 are often ushered in with Syncope &  
 & apoplexy. Instances <sup>↑</sup> sometimes ~~are~~ are not wan-  
 ting of these miss-mata producing  
 sudden death. —~~

~~2. They act on the nervous system  
 probably this the medium of the  
<sup>↑</sup> ~~gaster~~ inducing head aches & ind~~

~~Bilious fevers~~ <sup>ch</sup> are produced by marsh miasma  
are generally accompanied with  
Inflamm<sup>n</sup>: or Congestion in the Liver,  
& w<sup>th</sup> a protracted natural Secretion, &  
excretion of Bile. Gabani produced  
a similar & morbid state of the Liver  
by injecting Hydrogen into the  
Esophagus of fowls, & afterwards  
tying <sup>up the gullet</sup> them up until they died. The  
livers of brute animals which are  
killed in the fall when ~~it~~ bilious  
fevers prevail, are generally enlarged,  
& sometimes ulcerated, probably  
from inhaling the ~~Hydrogen~~ <sup>gas</sup> of  
marsh exhalations.

in mild cases of this disease. They  
act by discharging bile from the  
Stomach. The miasma not only adhere  
bile into the stomach, but they produce  
such an action upon it, as to induce in it  
the secretion of the black matter called Vomit.

Convulsions. I have seen many inter-  
mittents ushered in by the latter symptoms. —

creating ~~Sickness & Vomiting.~~

+ they act on the stomach & bowels —  
It is highly important to attend  
to this, as it furnishes the indication for the use of  
of the bite. — 12 The liver suffers more or  
less from ~~all~~ <sup>the</sup> ~~lateral~~ <sup>liver</sup> diseased miasma.

This I ascribe to a tend peculiar dispo-  
sition in the miasma to act upon  
that viscus, so as to increase the secretion  
& excretion, ~~of~~ & perhaps to vitiate  
the quality of the bite. These facts  
disposed to ~~impose~~ this ~~specie~~ from  
having fully ~~adapted~~ the old & exploded  
doctrine of ~~co~~ <sup>the</sup> ~~lateral~~ <sup>liver</sup> specificities.  
— li. The miasma produce in the  
stomach & bowels ~~Sickness - Vomiting~~

✓ cattle, hogs & sheep that feed on low ground  
in the fall, have often large inflamed & ulcerated livers.  
✓ Sometimes the bile is often mixed w/  
the blood in these fevers, and produces a  
deep yellow tincture on the skin. An  
Epidemic of this kind is described by  
Dr Haller in his Pathology. I saw it  
in the American Army in the  
Autumn of 1776. It is totally dif-  
ferent from the yellow fever of the  
West Indies. It is called *febris biliosa jacturoides*  
which produces bilious

Worst grades -  
by carriage - ~~same~~ which produce bilious  
f. Does this ~~poor~~ <sup>same</sup> ~~poor~~ ~~visceral~~ ~~visceral~~ act on  
the bowels so as to produce <sup>an</sup> Dysentery?

- ~~This is a knotty question. I see~~ ~~disorder~~  
answer ~~that~~ ~~believe~~ they do, and the two diseases are  
produced by the greater or less ~~for~~ ~~is~~ position of  
the system to one or other of those ~~cases~~ cases,  
or by the combination of the one ~~as~~ ~~as~~ another  
with more or less cold or moisture.

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~~8 Dyamisia, give the liver pain - and  
inflamm<sup>n</sup> - The bile is often so violent  
in its <sup>qualities</sup> as to excoriate the fauces  
if rectum in escaping upwards or  
downwards - and ~~this~~ after it is dis-  
charged to occasion syncope by its highly  
offensive smell.~~ <sup>V.</sup> go to 2<sup>o</sup> p 86 0

~~4 They are said to  
act on the blood in some instances,  
so as to dispose it to a septic tendency. For  
Dyscrasias  
- ~~As the disposer of the blood which appears  
in these fevers <sup>may</sup> be the effect of the  
violent  
diminished action of the arteries on it  
rending & tearing it to pieces. - This is an  
of ~~less~~ deficiency of action that ~~the~~  
of the cause of disordered blood, you will find in Dr  
Pursham. The action of Drimsmata is rendered  
more certain by their being  
cold or moisture. Hence they affect the  
system most certainly in ~~the~~ morning~~~~

exhalations of the  
From the same mill pond a dysentery  
will be produced on the inhabitants  
of the summit, and a bilious or inter-  
mitting fever on the inhabitants of  
the declivity of the same hill. on the  
Summit of the hill, the vires mala  
are combined with more cold, and  
moisture than below it. Mr Bruce tells  
us of he often saw the Dysentery and  
bilious fever alternate with each other  
at snap-haft. Dr Lydenham ~~suspects~~  
adopts the idea of <sup>it</sup> being produced by one  
same kind of vires mala. He calls it the  
Dysentery "febris grippeosa". Dr Lehorn  
of Dr Clark & Dr Jackson see  
not only the Dysentery, but the <sup>bilious</sup> colic  
depends upon the ~~same~~ <sup>same</sup> marshy

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Evening - In Midday they are elevated high  
in the ~~out~~ <sup>out</sup> ~~at~~ <sup>at</sup> midnight they are precipitated to the  
ground. I shall hereafter mention generally  
~~get to p. 66 85~~  
the circumstances which influence the  
action of ~~and~~ <sup>and</sup> ~~in~~ <sup>in</sup> ~~is~~ <sup>is</sup> ~~the~~ <sup>the</sup> ~~system~~ <sup>system</sup>.  
In the mean while, I proceed to speak  
of another combination with Air as  
called <sup>a</sup> ~~an~~ Animal ~~Irresistible~~ <sup>Irresistible</sup> ~~or~~ <sup>or</sup> ~~Irresistible~~ <sup>Irresistible</sup>  
- ~~Irresistible~~ from living bodies, or from inanimate  
However mortifying it may be to hu-  
-man pride, we are found to admit  
that our bodies engender the seeds of  
pestilence. — The morbid matter <sup>which</sup> pro-  
duces these diseases is derived from  
the following ~~lower~~ <sup>lower</sup> causes.

1. The want of cleanliness. This ~~acc.~~<sup>accor-</sup> - dings to Mr. Howards is a fruitful source of febrile disorders. Linen garments are best to engender the kind of these

predominate under different circumstances  
of weather or constitution.  
The said fever parts on sometimes the  
[All the fevers produced by putrid  
symptoms of Dysentery.]

vegetable exhalation are at more  
or less contagious. - This is evident  
from the authorities of both the Linds,  
Dr Cleghorn - Dr Clarke - Dr Hodges -  
Dr Zimmerman - Pinckney &c  
in short from all the writers on  
Epidemics, & I have been met with  
it. Innumerable proofs of it have  
occurred in our country, & many  
of them <sup>with some</sup> your own observation, nor will  
the ~~latter~~ facts ever called in ques-  
tion <sup>with some</sup> by body, but by the ~~latter~~ <sup>with some</sup>  
of Philadelphia Professor of the ~~latter~~  
of Physic in the University of Pennsylvania;  
who tho' he <sup>aspirited</sup> to the contrary;  
who tho' he has taught it, and I am  
satisfied - does not believe himself. -

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fevers more than Cotton or woollen,  
altho' the latter are supposed to retain  
it longer. The fevers of the campaign  
1785 were ascribed in part to the  
use of the rifle Shirt which was uni-  
versally worn by the northern troops  
during the late war. —

2. Confinement in a crowd. The plague  
in Egypt has been ascribed to the inhabi-  
tants of the shores of the Nile crowding  
together during the overflowing of that  
river. Jails - hospitals - and even  
schools often became the scenes of  
this disease. The confinement and  
concentration of ~~from~~ the discharges  
from the pores of the human body.  
~~The discharges from the body are more~~

X. How long the miasmata may lie in the body before it produces a fever is unknown. Many facts prove it to be for 20 & even 30 days. <sup>it is said, make it</sup> But some facts ~~say~~ much longer. <sup>D'Jackson says 6 months. ~~which~~ <sup>which</sup> ~~make~~ it <sup>make</sup> 1 year. New comers seldom take the fever on our neck till the 2<sup>nd</sup> year. <sup>after they arrive.</sup> The ~~Committee~~ of Congress informed me [March 1. 1799] that the troops who returned from Canada last war never had Relentants till the 2<sup>nd</sup> fall after y<sup>r</sup> return. no other persons had that disease, and no one soldier escaped it - The sporadic cases of yellow fever which occur in the winter & spring months <sup>are said</sup> to be derived from miasmata still floating in the system. <sup>#</sup></sup>

~~return to p. 89.~~ <sup>After the history</sup>

If I have given of the sources of marsh, or putrid  
 miasmata, and of their effects upon the human  
 mind, body, you will be surprised to hear  
 that the existence of these miasmata has been  
 called in question - very more that exp<sup>ts</sup> made  
 with the Indianer ~~both~~ <sup>both</sup> in America and  
 America prove that they have no existence at all,  
 and that the atmosphere supposed to contain them,  
 is two degrees purer than the air of adjoining, and  
 healthy mountains. To these exp<sup>ts</sup> I shall only apply  
 that the same mode of reasoning would prove the  
 non existence of those matters ~~who~~ in the air which  
 produce the small pox, measles, & a hundred odors  
 w<sup>t</sup> float in the atmosphere, none of which I believe  
 ever discover themselves by means of any of the  
 chemical test that ever has been invented. As well might  
 we might we deny the existence of spirit, because it  
 cannot be made obvious to our senses as the exis-  
 tence of miasmata, the ~~both~~ <sup>both</sup> West Indies, and the  
 Slave ~~yards~~ of the United States ~~not~~ have furnished  
 within the last ~~two~~ <sup>12</sup> years - many - many thousand  
 proofs of their existence. To deny them is to renounce Reason  
 all observation, & even the evidence of our senses. go to p 84. O

